THE QL REPORT

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Happy New Year! We hope 1987 is a good year for you. The year starts with QL "clones" being in the news. Both CST's THOR and Sandy's new FUTURA are causing a lot of interest in the UK. We think it is a good sign that companies are so very interested in further developing QL technology. It means that there should be a continual flow of new products coming out for the QL (both software and hardware) in the coming year.

John Juergens wrote us with a method of getting the old Gemini 10x printer to print graphs from EASEL. We have been meaning to describe this for you Gemini owners so here are excerpts from John's letter:

"...The mechanics use CARTRIDGE DOCTOR and about 10 minutes of your time. What needs doing is:

1. Get into GPRINT_PRT file with the Doctor.

2. If you are using ser2hr as your output port, look about the middle of the GPRINT_PRT block for ser1rh and change the "1" to 2"- just position the cursor over the "1" and type "2".

3. Now the easy part: If the bottom lefthand character in the displayed block of GPRINT_PRT can be considered 0(zero), goto character 17,4 ie, over 17 and up 4. You should see, going right, 18,33,18. Thisis the Gemini printer code for 1/6" line feed. Change the "18" to "10" which changes the line feed to 1/9".

4. Write out (as the Doctor puts it) and try it. "

HOW DOES IT MEASURE UP?

by Marshall Stiles

Although we are living in the "digital age", sometimes it's fun to measure something the old fashioned way. Everything seems to have a digital display attached to it now days. Just take a look at the dash board of a new car. What happened to the needles, guages, hands and clock faces? They're all digital diode type displays. While they are more accurately read, they are the electronic simulation of a guage. In other words, a circle or part of a circle divided up proportionately.

When you run the demo program in the listing below, use "F2" to boot your QL. You can use "F1" but positions for the "0" in line 130 and the text in line 250 will not be correct. You can change these yourself if you wish. Lines 150 to 190 are what causes the needle to change direction, based on whether or not "i" is even or odd. You may want to try eliminating these lines and replacing them with the code in either 160 or 180. The needle will only move in one direction then. You can also change the value of the variable "v1" to make the needle appear to move more rapidly or more slowly.

I am extremely happy with the speed at which the QL draws circles, lines, etc. It is much faster than my IBM-PC compatible at work.

Until next time!

```
100 REMark id: demo_gauge, Marshall Stiles, 1986
110 INK 7:PAPER 0:CLS:x=51:y=50:r1=30:r2=33:flag1=0
120 CIRCLE x,y,r1:CIRCLE x,y,r2
130 CURSOR 125,34:PRINT 0:LINE 51,22 TO 51,25
140 FOR i=1 TO 10
150  IF i/2=INT(i/2)
160   v1=5E-2:s1=1.57:s2=7.85
170  ELSE
180   v1=-5E-2:s1=1.57:s2=-4.71
190  END IF
200  FOR t=s1 TO s2 STEP v1
210   IF flag1=0 THEN flag1=1:GO TO 230
220   INK 0:LINE x,y TO x1,y1
230   x1=x+(r1-5)*COS(t):y1=y+(r1-5)*SIN(t)
240   INK 7:LINE x,y TO x1,y1
250   CURSOR 117,90:PRINT"demo":CURSOR 115,98:PRINT"guage"
260  END FOR t
270  LINE x,y TO x1,y1
280 END FOR i
//
```

Mel MacKaron of Albuquerque has a helpful hint for those of you who are using SIGN DESIGNER. He writes:

> "...perhaps you could inform customers that they can use the 'Fount Designer' section of 'SIGN DESIGNER' to create 'fonts' that will make the program more like 'PRINT SHOP' or 'PRINT MASTER'. What they can do is develop shapes (such as hearts, Christmas trees,etc.) and assign them to letters of the alphabet. Then, all they need to do is print 'A' (for example) to get a heart or whatever. This technique can be used to make borders and other attractive fillers."
> //

We also have a letter from Dr. H. J. Clase of Newfoundland, Canada. He

writes on a variety of subjects which we offer excerpts from here:

"I also enclose a copy of a tape I have recently sent in to the QUANTA library, since you are obviously members I thought you might like to have an advance copy. It mainly contains my 'Fount' suite of programs...to deal with Russian and Roman letters simultaneously. In the end I succeeded and on the way produced programs to design screen characters for the QL (QUILL or basic) and downloadable characters for the FX85. Unlike the other programs I have seen, (e.g. INKWELL) my modifications enable you to display and print two founts simultaneously without leaving QUILL. Although my efforts were directed to Russian, you can design any other character set, i.e. Greek and patch it into QUILL

I have particularly been interested in Marshall Stiles notes on screens, since I have been working along similar lines. My programs adapt automatically to all three formats, monitor, pal TV, and ntsc TV. I would like to suggest that this should be the aim of all programmers, on both sides of the Atlantic...

As far as the QL Report is concerned, I had almost decided not to renew my subscription. I think far too much of it is filled with glowing, uncritical descriptions of the latest additions to your inventory- i.e., advertising poorly disquised as editorial. However, the latest issue is an improvement, with practical information on DIY servicing, so I'll wait for the next issue before making up my mind. In this vein you might want to pass on a discovery of mine. Some of my cartridges 'lost' a lot of sectors or failed to reformat after a period of use and I noticed that the pressure pad was quite loose. It can easily be removed with a pair of fine pointed forceps, bent back into shape, and replaced, generally with dramatic improvement...

P.S. The following is a good general purpose screen format.

```
1100 REMark********************
1110 DEFine PROCedure           Rwindows
1120 LOCal ,f,w,x,y: ch=0: mon=0: pal=0: ntsc=0
1130 WINDOW 512,256,0,0: PAPER 0: CLS
1140 f=PEEK (163890): SELect ON f
1150    =0: w=512: ch=10: x=0: y=0: mon=1
1160    =1: w=448: ch=10: x=32: y=16: pal=1
1170    =2: w=448: ch=8:  x=32: y=0: ntsc=1
1180 END SELect: MODE 8*(NOT mon)
1190 WINDOW#2,w,ch*20+2*mon,x,y:PAPER#2,4: INK#2,0
1200WINDOW#0,w,ch*(5-(NOT mon)),x,y+ch*20+6*mon: PAPER#0,2:INK#0,6
1210 WINDOW#1,w,ch*20+2*mon,x,y: PAPER 0: INK 4:
1220 FOR i=0,2,1: BORDER#i,mon*(NOT(NOTi)),0,6:CLS#i: CSIZE#i,0,0
1230 END DEFine Rwindows
//
```

Talent has released a number of new products which we at least want to draw your attention to. BASIC-ALLY provides debugging utilities

similar to those found in machine code monitors. It allows the user to step through a program, alter it, examine the variables, etc. A dual screen facility allows the program to be interrupted and resumed without affecting the screen display.

JUNGLE EDDI is an arcade game that was given a favorable review in the December SINCLAIR USER magazine. You have to swing your way through the jungle avoiding snakes, crocodiles and other venomous critters. As you hurtle from branch to branch you know that a single slip will send you tumbling into the swamp below. Above you are insects waiting to sting you.

NEMESIS is a new text adventure. Only a few hours ago you were standing before the Council of Elders in the Inner Sanctum of the Federation of the Seven Galaxies. Their orders to you were, "Track down and capture the most wanted and dangerous man in all the Cosmos, a man known only as 'Nemesis'." You will need to be quick and resourceful to reach your goal- and avoid the dangers along the way. Here is an example of some of the descriptions: " A waterfall thunders down into the lake before you. Yellowy froth clings to the rocks and dead fish float on the surface. Out in the center of the lake is a rocky outcrop. The surface begins to swirl, then erupts violently, cascading filthy water everywhere. A hideous creature raises its bloated head from the waters and bares its razor-sharp teeth." An original soundtrack can also be purchased to accompany the playing of the program.

Talent has two PCB Designer programs coming out. Number one is suitable for single-sided Eurocards(100 x 160mm) and incorporates an Autcrouter. Final printout is suitable for contact printing. Number two, which should prove more popular over here, allows the user to design double-sided printed circuit boards up to 270mm by 150 mm. The pcbs can be drawn at about four times life scale. A zoomout facility allows an overall view of the board. Standard component options held in the program include IC's, CAPACITOR, DIODE, INDUCTOR, and CONNECTOR. POINT and SHAPES allow pin throughs and non-standard shapes to be drawn. The program gives printouts suitable for direct tracing of pcbs on Epson-compatible dot matrix printers. I t can be adapted to run on other printers. Printouts of the underside of the board are mirrored so that, when drawing a double-sided board, the board is treated as if it were transparent rather than reversed. Some important fact to remember on these programs is that number one only works on JM and later ROMS and does not require extra memory. Number two requires 512k RAM expansion but works with all QL ROMS.

Talent's QDOS SUPERBASIC TRAP HANDLER makes QDOS available from SuperBasic. No machine code is needed. You have full access to the file store. Error trapping is simplified to allow you to write professional code.

QIMP is a very flexible and user-friendly front-end system for your QL. It uses a combination of icons and drop-down menus to call up system commands. QIMP can be operated from the keyboard using cursor keys or the ABC mouse.

QL TOOLSET consists of over 100 extensions to SuperBasic. The additional commands greatly increase the QL's file handling and graphic capability. Other commands are included which allow job control, bit manipulation and base conversion. Among the 23 graphic/screen commands, the user can magnify the screen x2, mirror it up, down, left or right, draw lines using the cursor, plot or EOR sprites to the screen and copy blocks of the screen. SuperBasic programmers will find included commands for a digital clock, character editor, and capslock facility. Files can be joined, renamed, and modified.

SIDEWAYS is the program from Talent people have been eagerly waiting for for a number of months. A few last minute bugs have delayed it but it is scheduled for release early next month. The program prints everything sideways. It is perfect for spreadsheets, diagrams,text or anything which is wider than your printer paper. You are given the choice of several different print modes and options. You can set the print-size parameters to print out a complete spreadsheet on a single sheet of paper. You can also print a document out on multiple sheets if you wish. The boklet mode allows you to print two pages on one sheet for binding down the center, or single pages for binding at the edge. Pages may be outlined and printed several to a sheet.

We are now accepting pre-orders for SIDEWAYS so if you are interested in the program, let us know and we will reserve one for you and notify you by postcard when your order comes in.

Talent is also readying a RAM DISK and PRINT SPOOLER and TECHNIKIT, for those of you who have TECHNIQL. The first two programs are utilities. TECHNIKIT is supplied as two modules. The first module is called TECHNIPLOT. This module is a combination of a SuperBasic driver program and a modified version of TECHNIQL. Three sample output programs are supplied: one for the Penman plotter, one for the Silver Reed Color Pengraph, and a third for the screen. You do not need to have these partcicular models of a plotter since the programs supplied can be modified to drive nearly all makes of plotter or printer. In general, any plotter which supports the MOVE and DRAW commands will work with TECHNIPLOT.

The second module, TECHNIFONT, allows you to design your own character set and includes a couple of ready made fonts. Also included is a library maintenance/file handling program which allows you to take any cell from one library and include it in another.

We now have QFLASH back in stock . This time we have not only the ramdisk but the QFLASH TOOLKIT also. The toolkit provides SuperBasic extension commands for extrememly fast microdrive to ramdisk copying, selective backup of ramdisks and full control over all directory device names. The toolkit also has demonstration programs to show how to use the ramdisk and/or provide additional utility commands. They will only work with version 3 of the QFLASH ramdisk and will not work with other company's ramdisks.

Among the extension commands is MDVLOAD which is a superfast microdrive to ramdisk copy command. An entire microdrive cartridge is copied to ramdisk in 7 to 14 seconds regardless of the number of files on the cartridge or their size. MDVLOAD may also be used to recover bad microdrive cartridges that cannot be read anymore using such standard commands as COPY. It will try and recover bad sectors although this may not always be successful. FBACKUP copies all files from ramdisk to the directory device(microdrive, floppies, winchester, etc.) SBACKUP copies only those files which were modified since the last full or selective backup.

The DEVNAME command can rename any directory device that was present when the toolkit was first initialized. It can be used to assign different names to the storage devices(microdrive, ramdisks, floppies, etc.). The DEVLIST command displays a table of the original, before any changes, and current values of the directory device names.

Also included in the toolkit is a program called RAMdoctor which can be used to repair files that were loaded from a bad microdrive cartridge to ramdisk. In addition, it can be used to patch any of the other files on the ramdisk. Once files are changed using RAMdoctor they can be written back to any storage device- floppy, microdrive or Winchester. The program contains a full-screen editor allowing data entry in both hexamdecimal and extended ASCII.

Also included is a COMPARE program written in Pascal which compares two files byte by byte and lists any non-matching bytes on the screen. The FASTBACKUP program contains a SuperBasic program which enables you to make fast copies of a cartridge. The RESET128 program allows your programs to run on the QL which would not otherwise work with memory expansion in place. It will reset your QL, making it look like memory expansion is not there.

We attended CES in Las Vegas last week. Amstrad was there with their PC 1512. Even Alan Sugar was there to open the booth. The show opened at 10:00 am but Amstrad did not open their booth until 11:00. It was cordoned off and surrounded by "Bobbies" or men dressed as London policeman. At 11:00 they cut the ribbon, Sugar made some opening remarks, and the people streamed in. Sugar stated his intention to push the 1512 through mass merchants. It remains to be seen whether or not he will succeed with his plans to become a dominant force in the selling of an IBM compatible here in the States. Atari introduced their own PC at the show also-something of a surprise. The base price should come in around $700 for a 256k single drive monochrome system.

We did run into a QL company of sorts. They are a distributor for a number of computer items and have some QL inventory. We should be able to get all the HCP series books.

Terry Hardenbergh wrote us about an interesting way to cover and protect your 512k. He writes:

"I have discovered a simple way to cover and protect the 512k RAM

which extends beyond the QL case. The shipping cover is o.k. but puts excessive loads on the 512k leverage! A better solution is the 'black' half of an ordinary audio-cassette tape storage box! Clip the tape locking tabs off with a pair of scissors... and then trim the end tabs to fit.... You have a perfect 512k 'cap.'"

We will be coding all QL Report mailing labels(using a procedure from within ARCHIVE) starting with this issue. The number on the label will tell you how many issues you have left in your subscription. So, if you have a two(or worse yet, a one!), it's time to renew. The price is still $15.00 per year. However, we are going to a calender year for subscriptions so if your current subscription renews in, say, March, send us a check for the 9 remaining issues of 1987 at $1.25 per issue.

We have on order a program that should be of interest to a lot of you. TAX-QL is a template for the 186 Individual Federal Income Tax Form 1040, and common related schedules and forms. It is for use with the Psion's spreadsheet program, version 2.1 and works with a QL with at least 256k memory.

The template is laid out similarly to the IRS forms(but not exactly). Line numbers correspond to those on IRS forms, but it is not expected that the print out will be filed. You will have to manually copy the information from the template to the actual IRS forms. The program has some instructions built-in but if you have any doubts as to how to proceed, it will be best to check the instructions on the IRS form itself.

Anyone purchasing the program who register it with the author(form included) will be automatically notified of any changes or modifications to TAXI-QL through June 30, 1987. TAX-QL comes with a very professional 15 page manual. In fact, at a price of $16.95, the program with the manual is an excellent way to familiarize yourself

REVIEW OF FRONT PAGE ---------- ---- by Rich Bazan

Gap Software has recently released FRONT PAGE,the first desk top publishing program available for use on the Sinclair QL. The program, while not as comprehensive as Pagemaker or Desk Top Publishing on the Macintosh or IBM, does provide the basic tools needed to quickly generate full-page column-oriented text and graphics suitable for advertising flyers, small business catalogs, ads,club newsletters,etc.

The program is not copy protected and will run from either microdrive, disk or ramdisk. The program does not require disks or expanded memory, but if available utilizes them to reduce the time for storage and retrievals frequently made by the program to provide automatic back-up of the user's work.This feature helps to prevent the accidental loss of perhaps hours of effort.

A virtual screen technique is used to provide a worksheet of 100 colums by 100 rows (8x8 character matrices) or 800 pixels x 800 pixels.This corresponds to printed output on a full 8 1/2 x 11 " sheet of paper.All of this is not viewable on the screen at one time, so a

viewport of 480 x200 pixels is provided which can be scrolled using the cursor keys. Commands are also available to directly move to any spot on the worksheet. All commands are selected from a series of menus using only the function keys(except where a file name or such needs to be entered).This minimizes the keystrokes required and makes the program easy to learn and use.On-screen prompts are given for functions requiring more than one entry.For instance, to enter text the cursor is moved to the appropriate spot, a character set is selected and the appropriate function key depressed.The current position of the cursor forms an upper left-hand location for a window.

Next the program prompts to move the cursor to the lower right-hand location and press space.A window is marked in green.A character height(0-1)and width(0-2) is then requested. As text is entered it appears in the window and when finished is printed on the screen and into the on-going work files.In addition to the standard QL font one alternate font is provided.The same procedure without text allows for the quick erasure of large blocks on the page. A similiar scheme is used to allow cut-and-paste operations on text or pictures but unfortunatly the destination must be indicated by a numerical entry of row and column (very awkward) and there are limitations on the permissible distance the destination can be when positioned from the source. By positioning several of these windows,several columns of text can be realized.Unfortunately text,depending on the character size and window dimensions selected,does not automatically wrap-around on word boundaries- thereby necessitating hand-editing.

Built-in graphics are somewhat limited consisting of a set of block graphics(small 8 x 8 patterns such as triangles,dots,dashes,etc) to primarily be used to create borders or frames around text or to help fill in large shapes. Neither these UDG's or the alternate character font appear to be able to be user-modified at present. Freehand graphics is limited to only a moving cursor dot which can be moved with the cursor(with pen up or pen down). One capability provided that I don't feel is clearly stated in the GAP's ads is the ability to import monochrome screens from other programs such as Graphiql+ QLDRAW, ArtIce, Eye-Q,etc) of up to 480 x 200 pixels. These could be digitized pictures,clip-art etc.

Finally the program provides a unique printer driver(at present limited to Epson or compatibles) capable of outputing the entire page in memory to a standard 8 1/2 x 11 page.To fully utilize this the printer must be capable of double density printing (960 dots across page).

As you can see the program in its present state is open for improvements in several areas but it does provide the basic tools for simple applications and has the potential to develop into a much-more sophisticated product.Gap Software has indicated it is their intention to provide such improvements and additional capabilities to the program in 1987 making an already good program even better.
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Until next month, enjoy your QL.